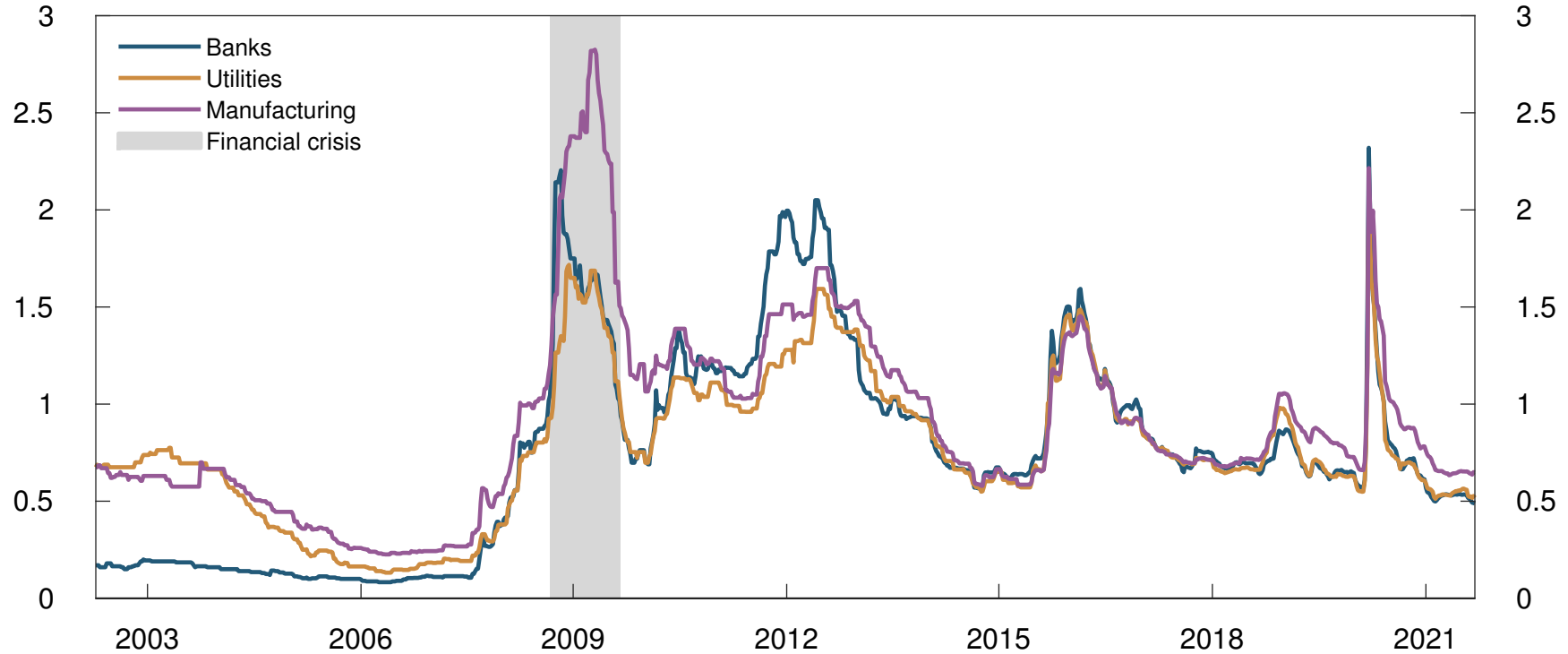


Chart 1.1 Bond market risk premium¹⁾

Investment grade. Five-year maturity. Percentage points over three-month Nibor. 4 April 2002 – 16 September 2021²⁾

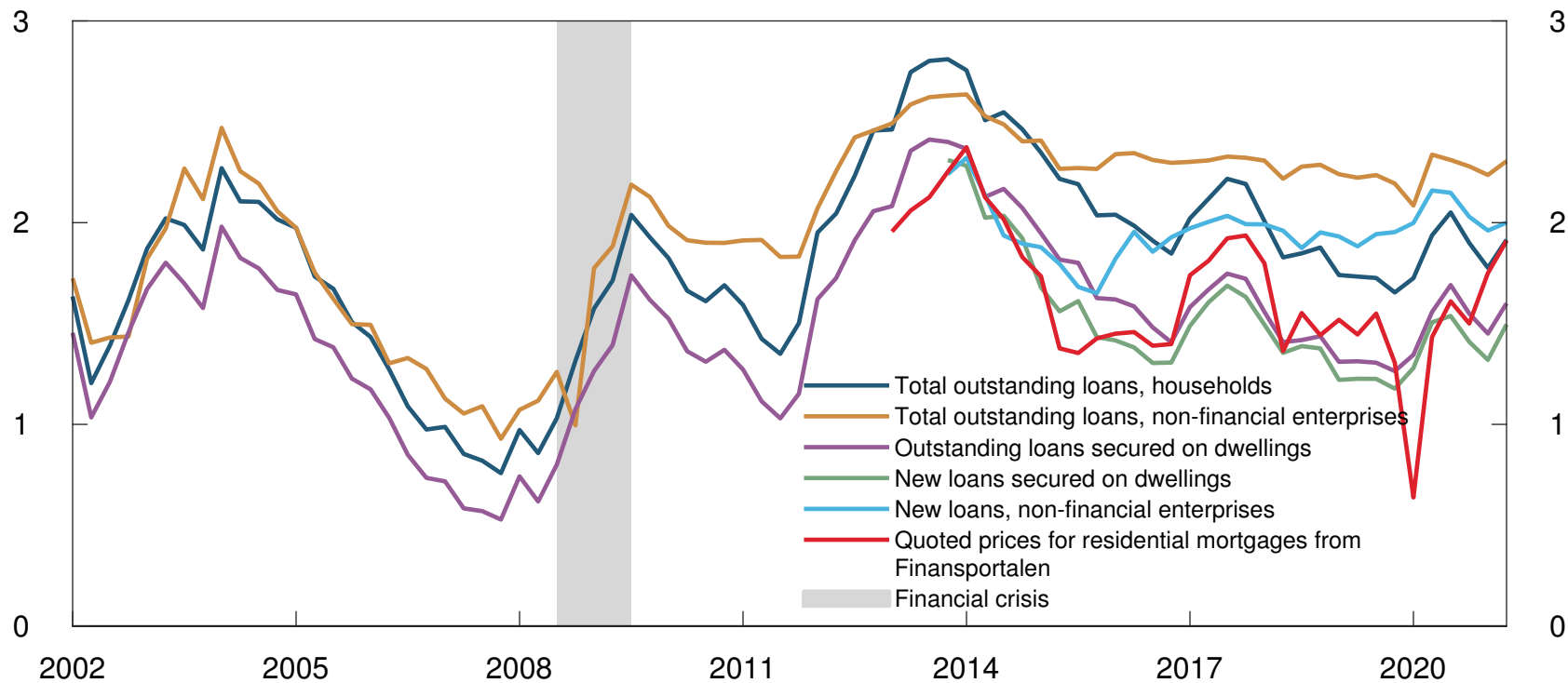


1) Indicative risk premium on senior obligations with five-year maturity issued by banks and enterprises with investment grade (BBB- or better).

2) There is a change in the data source in August 2015 from DNB Markets to Nordic Bond Pricing, which constitutes a break in the series.

Sources: DNB Markets and Nordic Bond Pricing

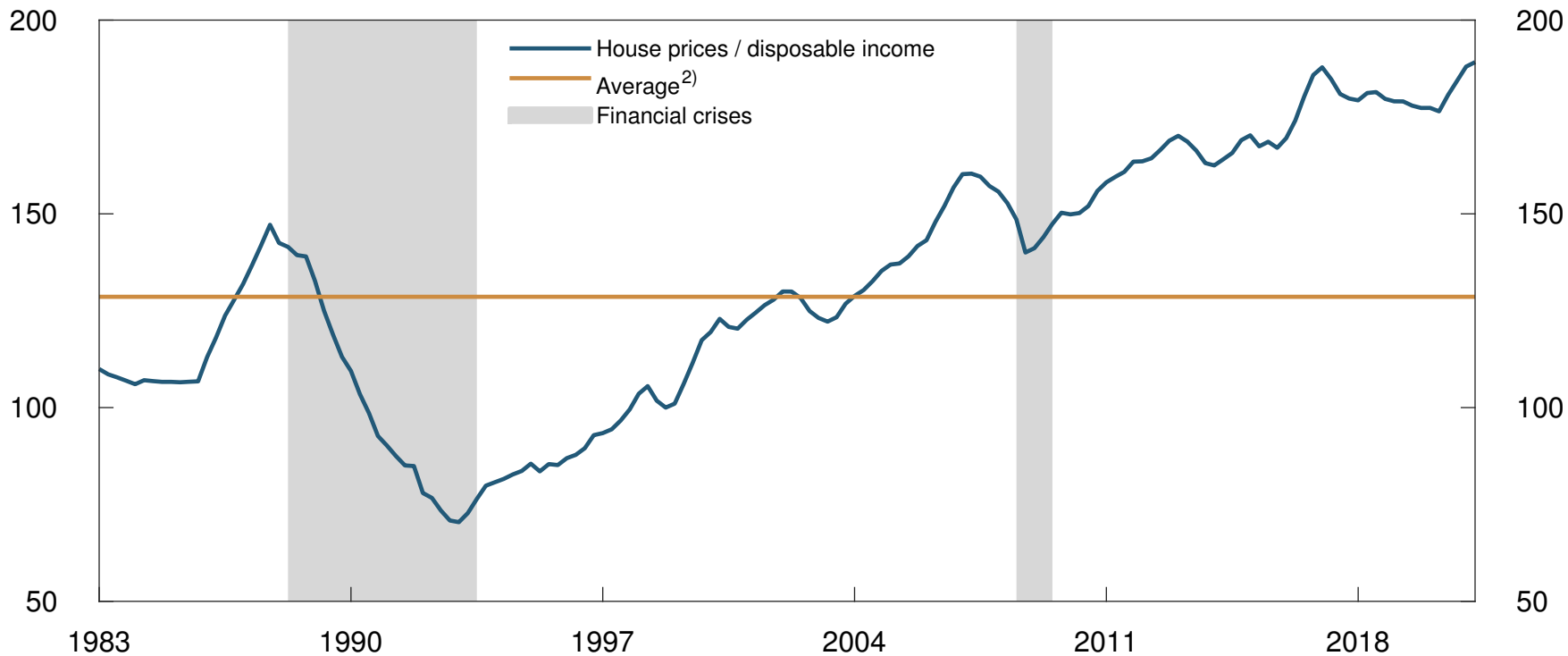
Chart 1.2 Interest margin on loans from banks and mortgage companies
 Percentage points over three-month Nibor. 2002 Q1 – 2021 Q2



1) Quoted prices from 2013 Q1.

Sources: Finansportalen, Statistics Norway and Norges Bank

Chart 1.3 Ratio of house prices to disposable income¹⁾
 Index. 1998 Q4 = 100. 1983 Q1 – 2021 Q2

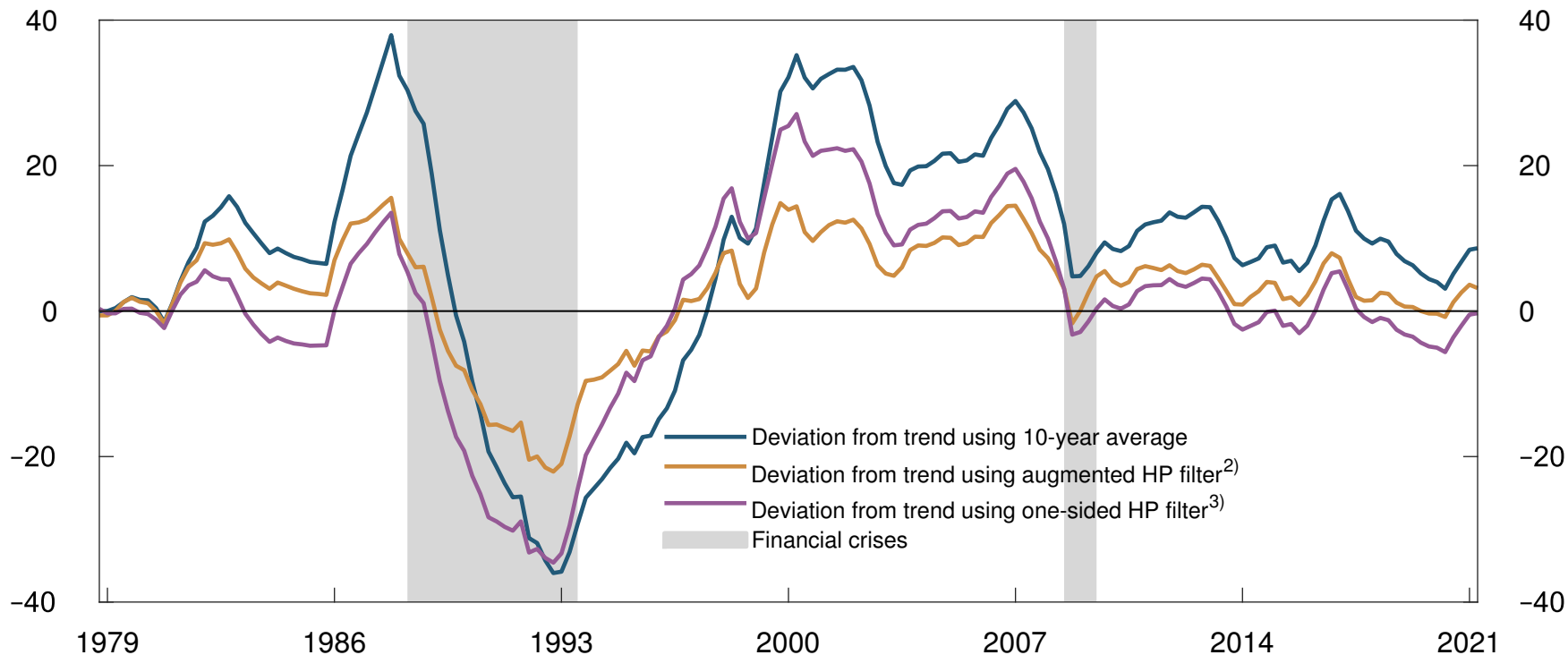


1) Disposable income per capita. Disposable income is adjusted for estimated reinvested dividend income for 2000 Q1 – 2005 Q4 and reduction of equity capital for 2006 Q1 – 2012 Q3. 2) Based on data from 1978 Q4 onwards.

Sources: Eiendomsverdi, Finn.no, Norwegian Association of Real Estate Agents (NEF), Real Estate Norway, Statistics Norway and Norges Bank

Chart 1.4 House price gap

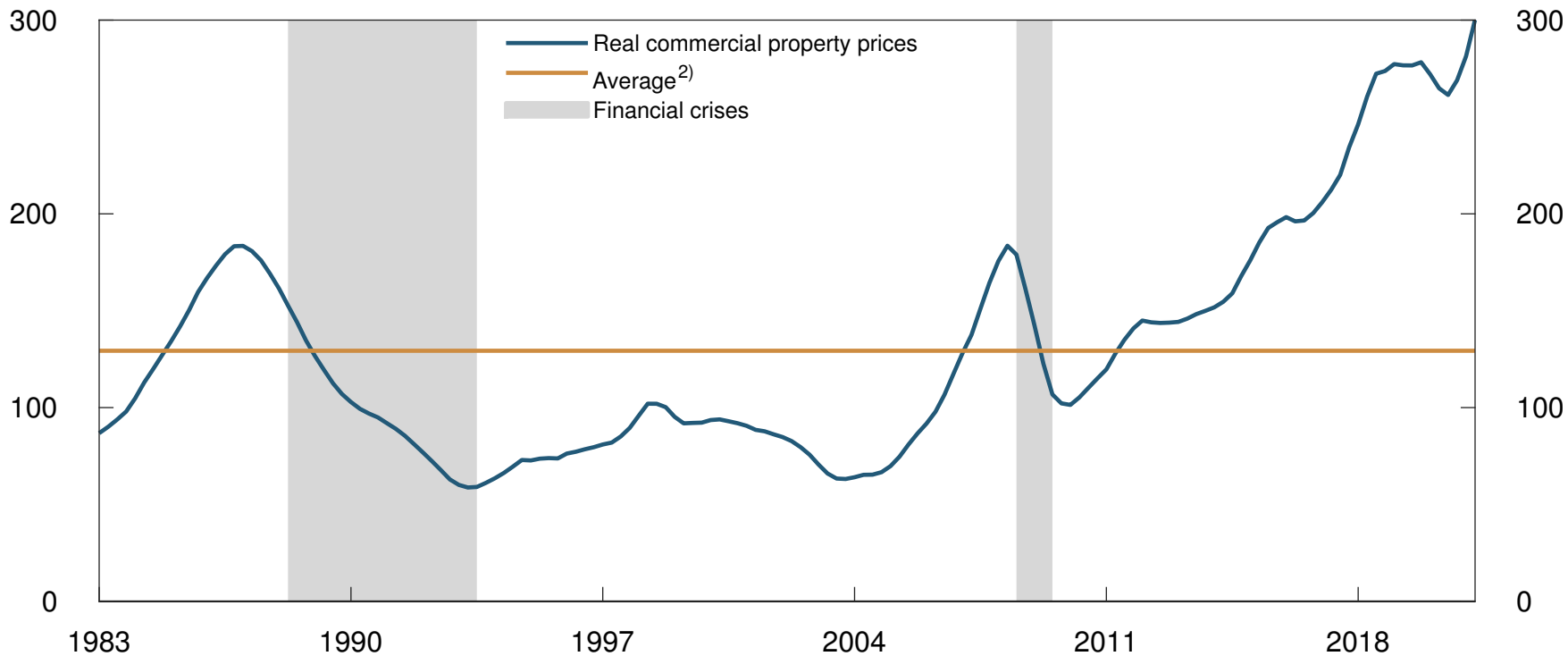
Ratio of house prices to disposable income¹⁾. Deviation from estimated trends. Percent. 1978 Q4 – 2021 Q2



1) Disposable income per capita. Disposable income is adjusted for estimated reinvested dividend income for 2000 Q1 – 2005 Q4 and reduction of equity capital for 2006 Q1 – 2012 Q3. The trends are estimated based on data from 1978 Q4 onwards. **2)** One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000. **3)** One-sided Hodrick-Prescott filter. Lambda = 400 000.

Sources: Eiendomsverdi, Finn.no, Norwegian Association of Real Estate Agents (NEF), Real Estate Norway, Statistics Norway and Norges Bank

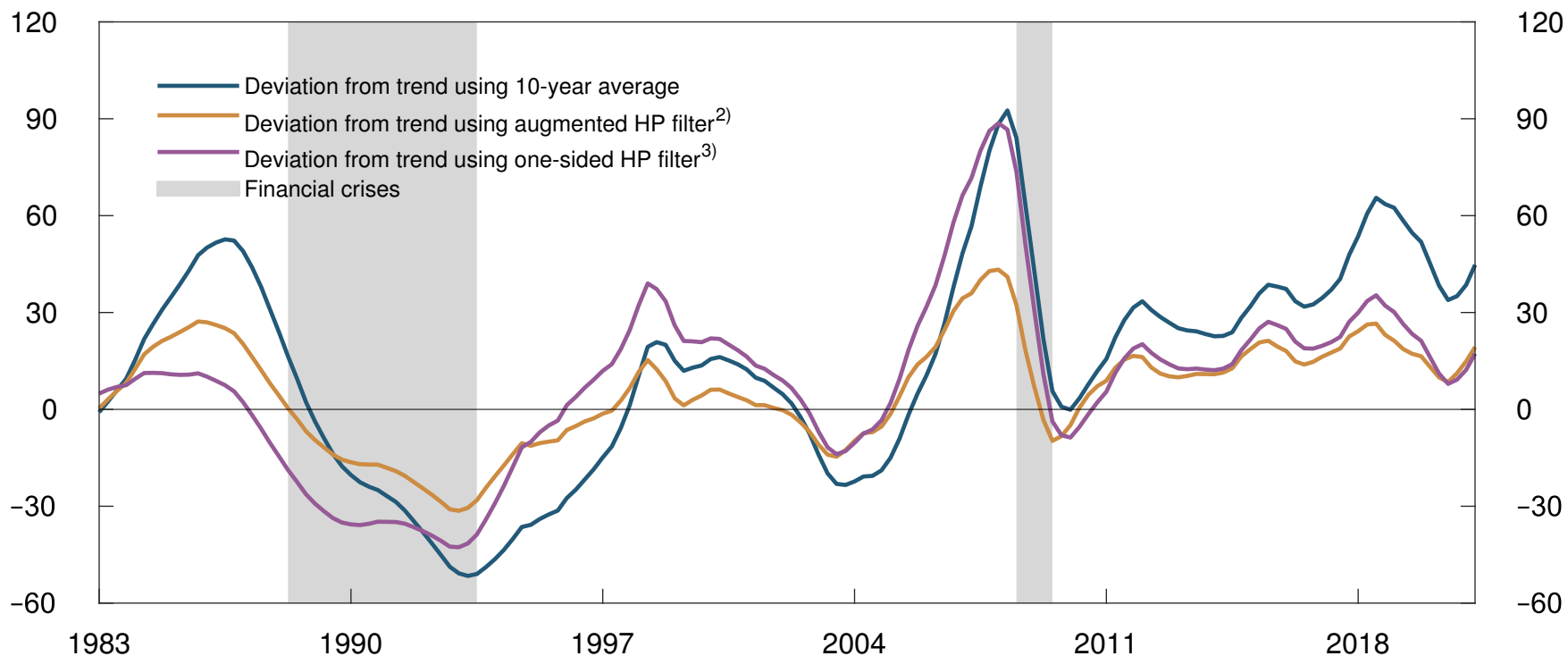
Chart 1.5 Real commercial property prices¹⁾
Index. 1998 = 100. 1983 Q1 – 2021 Q2



1) Estimated real selling prices per square metre for prime office space in Oslo. Deflated by the GDP deflator for mainland Norway. Average selling prices for the previous four quarters. 2) Based on data from 1981 Q3 onwards.
Sources: CBRE, Dagens Næringsliv, OPAK, Statistics Norway and Norges Bank

Chart 1.6 Commercial property price gap

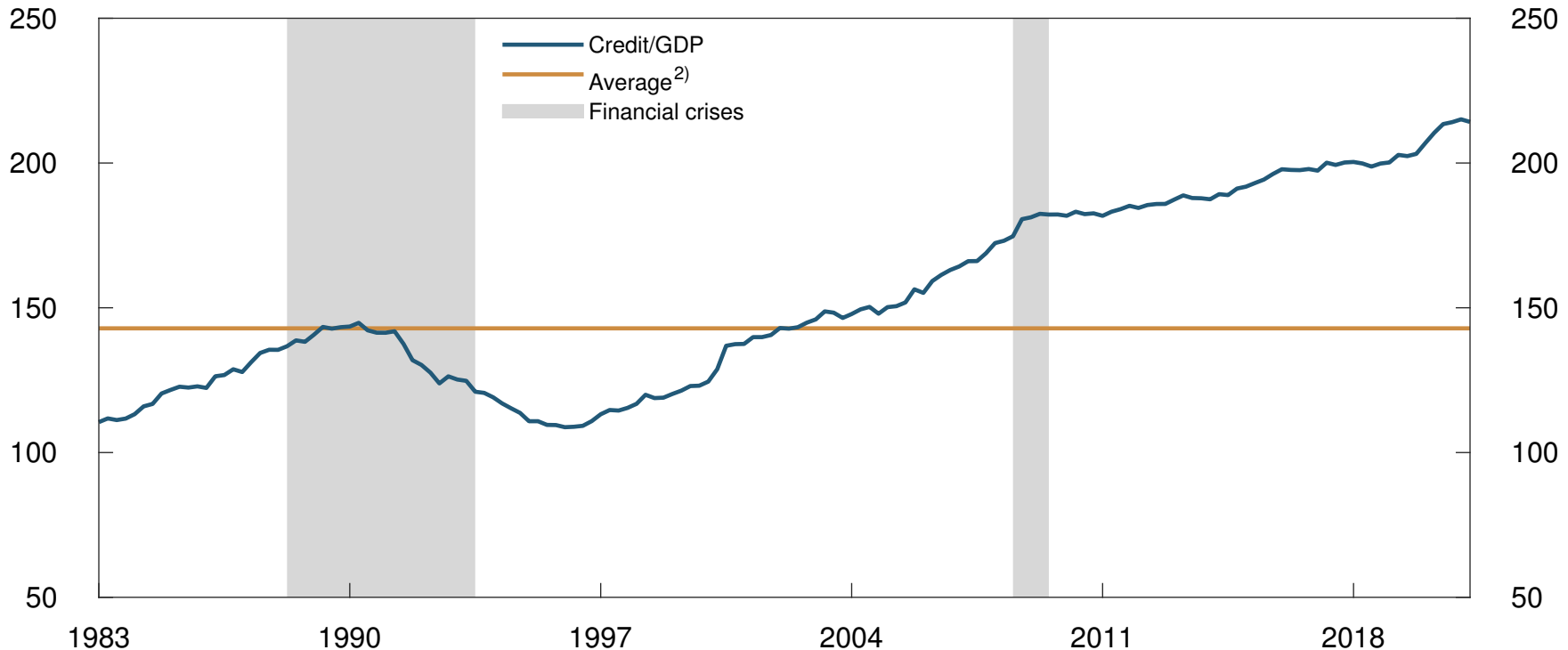
Real commercial property prices as deviation from estimated trends.¹⁾ Percent. 1983 Q1 – 2021 Q2



1) Estimated real selling prices per square metre for prime office space in Oslo. Deflated by the GDP deflator for mainland Norway. The trends are estimated based on data from 1981 Q3 onwards. **2)** One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000. **3)** One-sided Hodrick-Prescott filter. Lambda = 400 000.

Sources: CBRE, Dagens Næringsliv, OPAK, Statistics Norway and Norges Bank

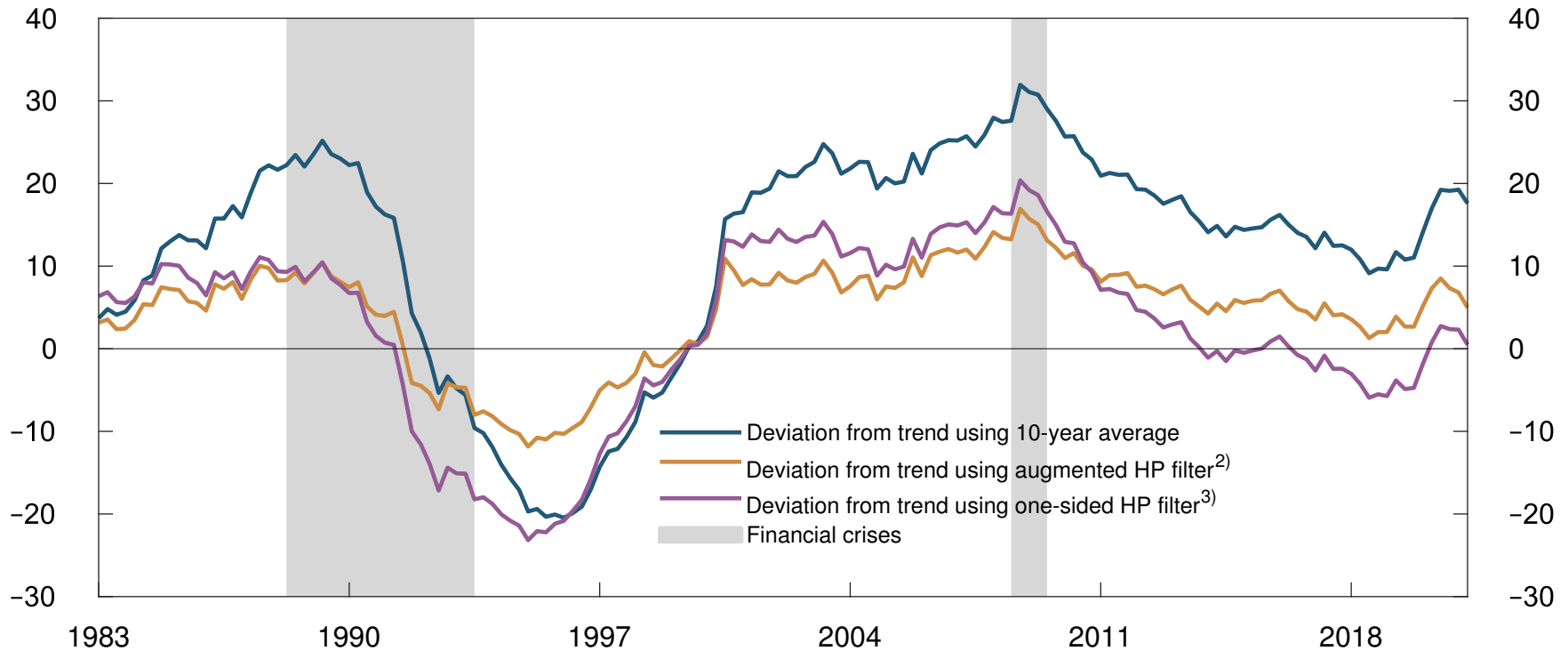
Chart 1.7 Credit¹⁾ as a share of GDP
Mainland Norway. Percent. 1983 Q1 – 2021 Q2



1) The sum of C2 households and C3 non-financial enterprises for mainland Norway (all non-financial enterprises pre-1995), C3 non-financial enterprises comprises C2 non-financial enterprises and foreign debt for mainland Norway. **2)** Based on data from 1975 Q4 onwards.
Sources: IMF, Statistics Norway and Norges Bank

Chart 1.8 Credit gap

Credit as a share of GDP. Mainland Norway. Deviation from estimated trends.¹⁾ Percentage points.
1983 Q1 – 2021 Q2

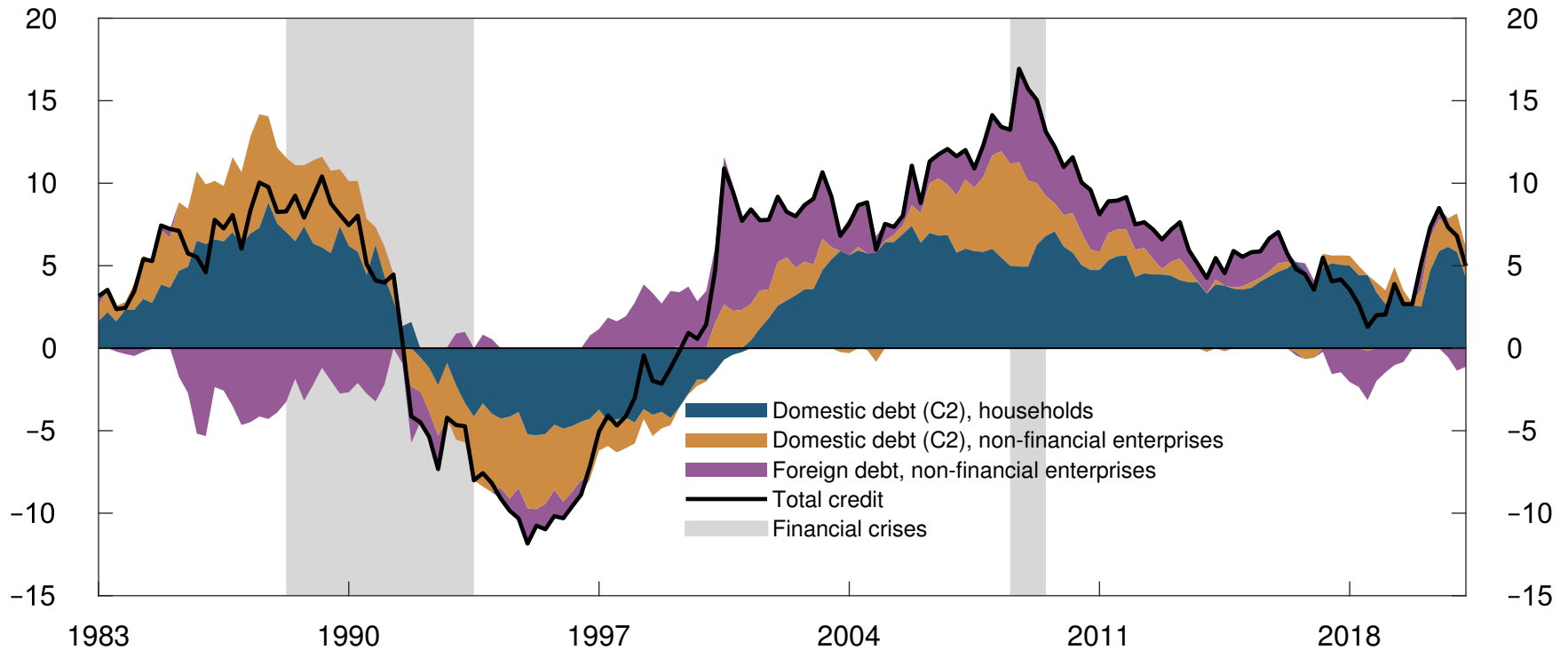


1) The sum of C2 households and C3 non-financial enterprises for mainland Norway (all non-financial enterprises pre-1995), C3 non-financial enterprises comprises C2 non-financial enterprises and foreign debt for mainland Norway. The trends are estimated based on data from 1975 Q4 onwards. **2)** One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000. **3)** One-sided Hodrick-Prescott filter. Lambda = 400 000.

Sources: IMF, Statistics Norway and Norges Bank

Chart 1.9 Decomposed credit gap

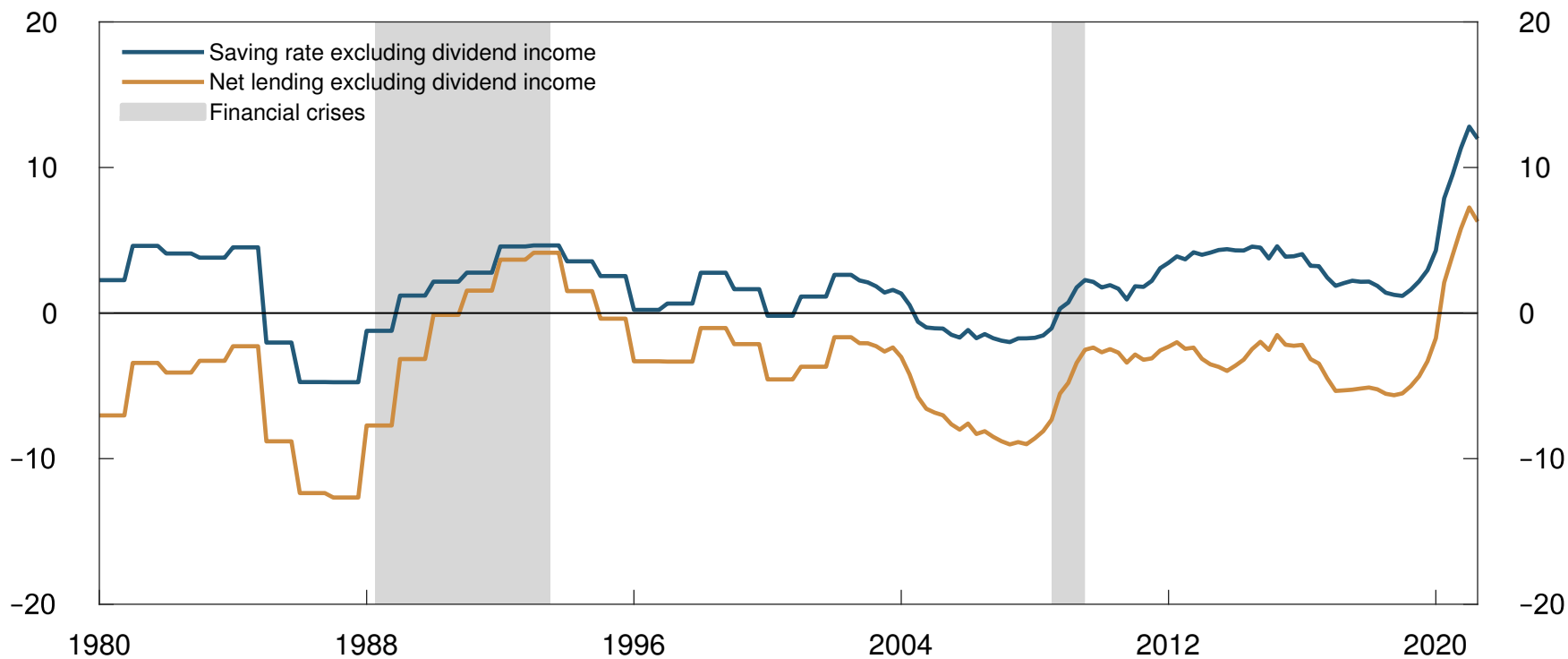
Credit as a share of GDP. Mainland Norway. Gap calculated as deviation from trend.¹⁾ Percentage points.
1983 Q1 – 2021 Q2



1) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000.
Sources: IMF, Statistics Norway and Norges Bank

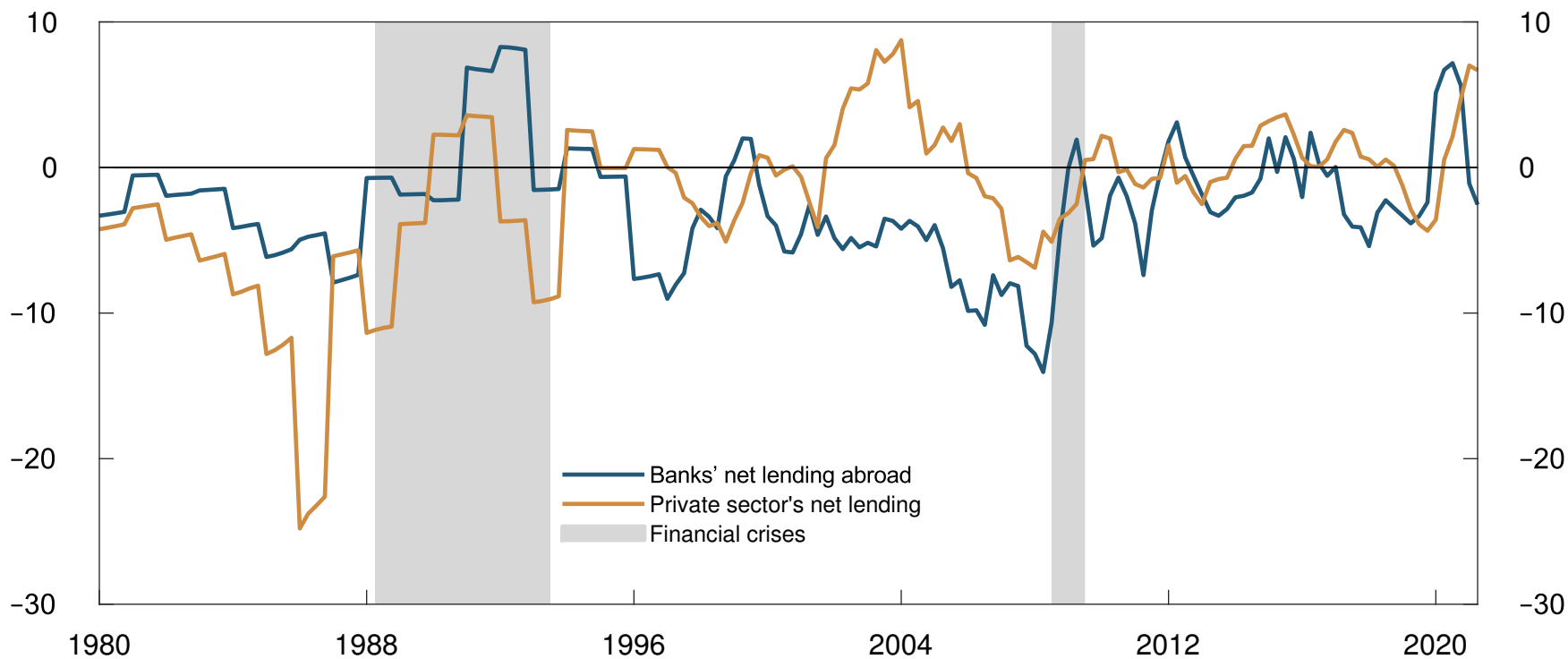
Chart 1.10 Households' saving and net lending¹⁾

Share of disposable income. Four-quarter moving average. Percent. 1980 Q1 – 2021 Q2²⁾



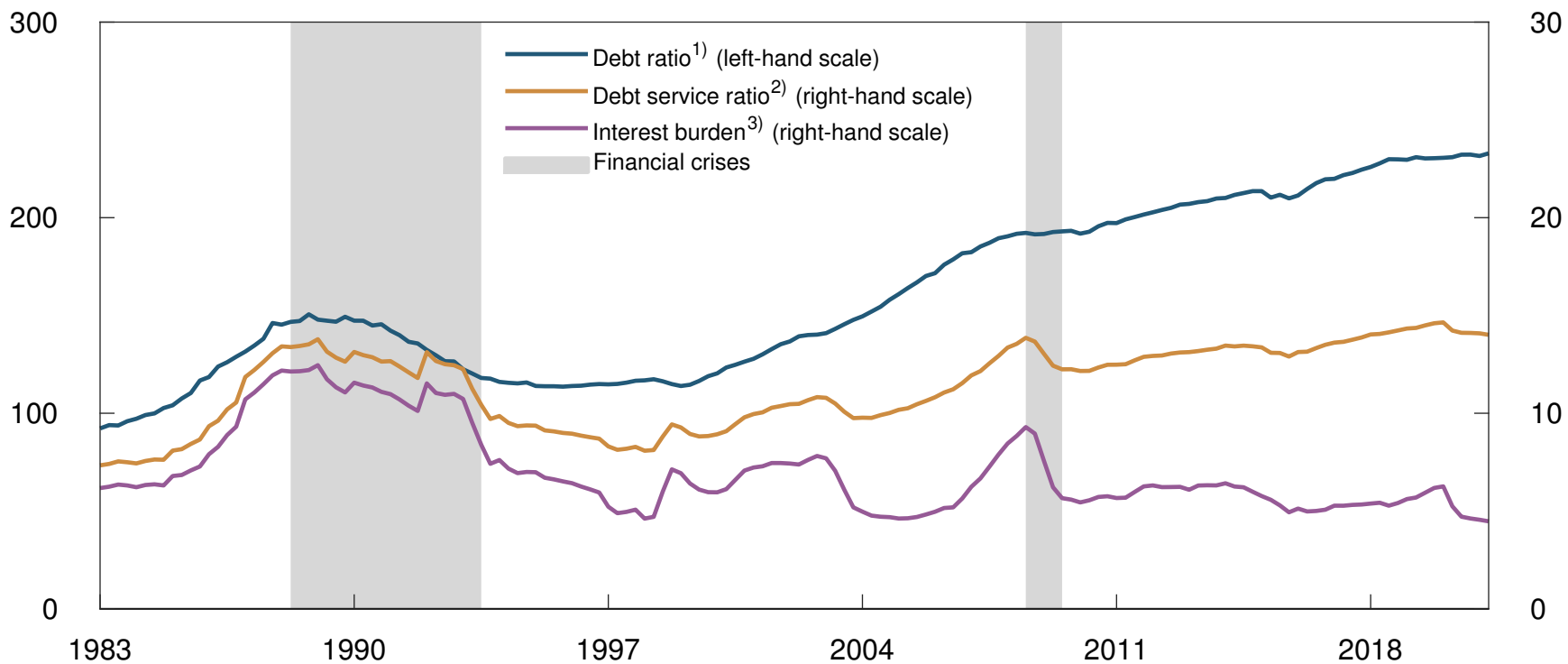
1) Saving and net lending of households and non-profit institutions serving households. Saving and net lending is adjusted by excluding dividend income received. Disposable income is adjusted by excluding dividend income received and adding savings in pension funds. 2) Annual data before 2002. Sources: Statistics Norway and Norges Bank

Chart 1.11 Private sector's net lending¹⁾ and banks' net lending abroad
 Share of GDP. Four-quarter moving average. Percent. 1980 Q1 – 2021 Q2²⁾



1) Total net lending minus net lending of the public sector. 2) Annual data before 2002.
 Sources: Statistics Norway and Norges Bank

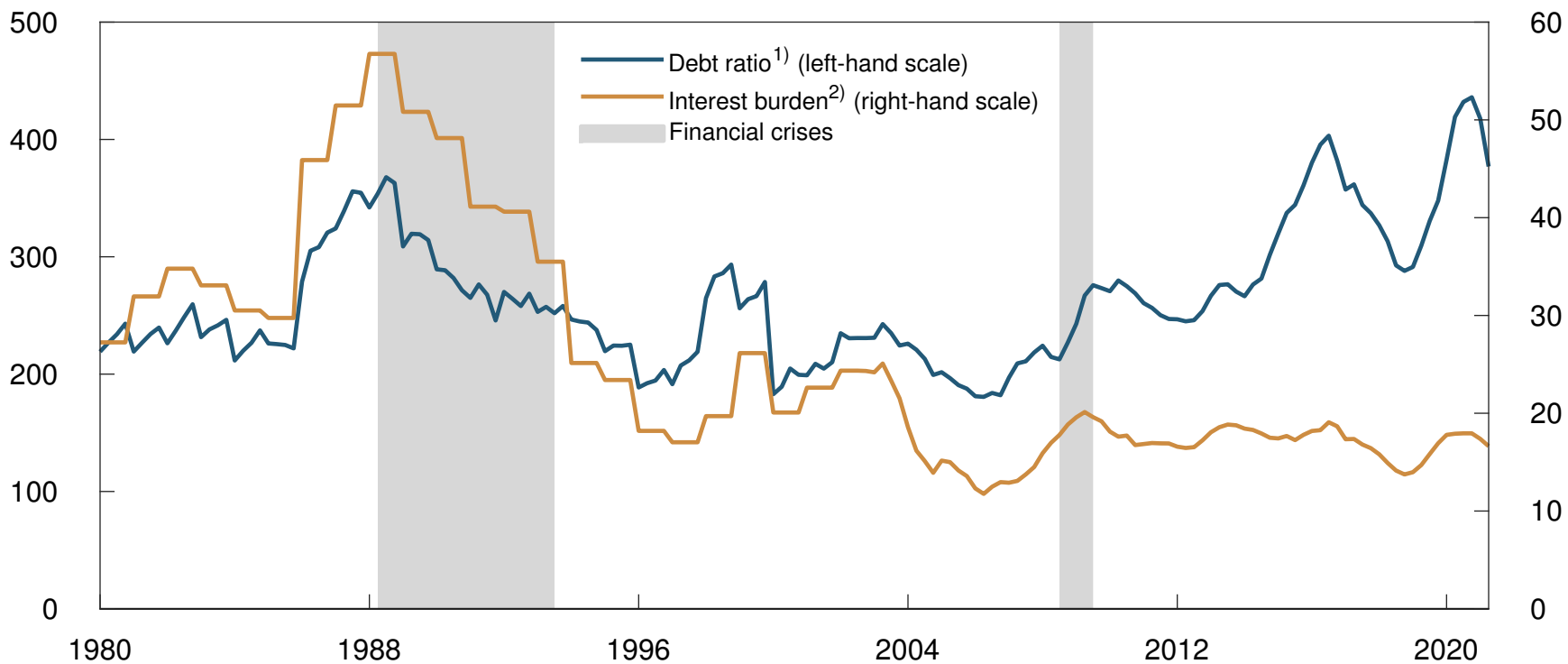
Chart 1.12 Household debt ratio, debt service ratio and interest burden
Percent. 1983 Q1 – 2021 Q2



1) Loan debt as a percentage of disposable income. **2)** Interest expenses and estimated principal payments as a percentage of disposable income and interest expenses. **3)** Interest expenses as a percentage of disposable income and interest expenses.

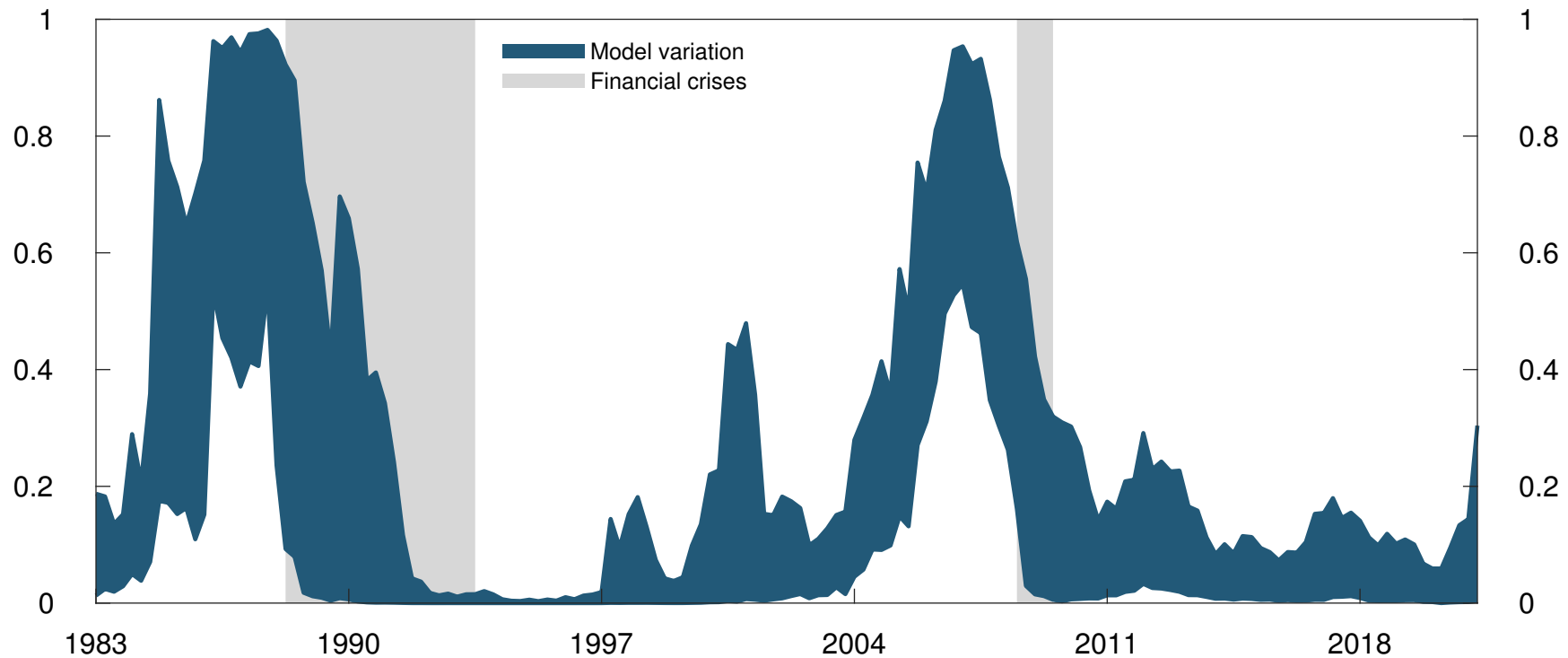
Sources: Statistics Norway and Norges Bank

Chart 1.13 Non-financial enterprises' debt ratio and interest burden
 Percent. 1980 Q1 – 2021 Q2



1) Loan debt as a percentage of disposable income, dividends paid and interest expenses. 2) Interest expenses as a percentage of disposable income, dividends paid and interest expenses.
 Sources: Statistics Norway and Norges Bank

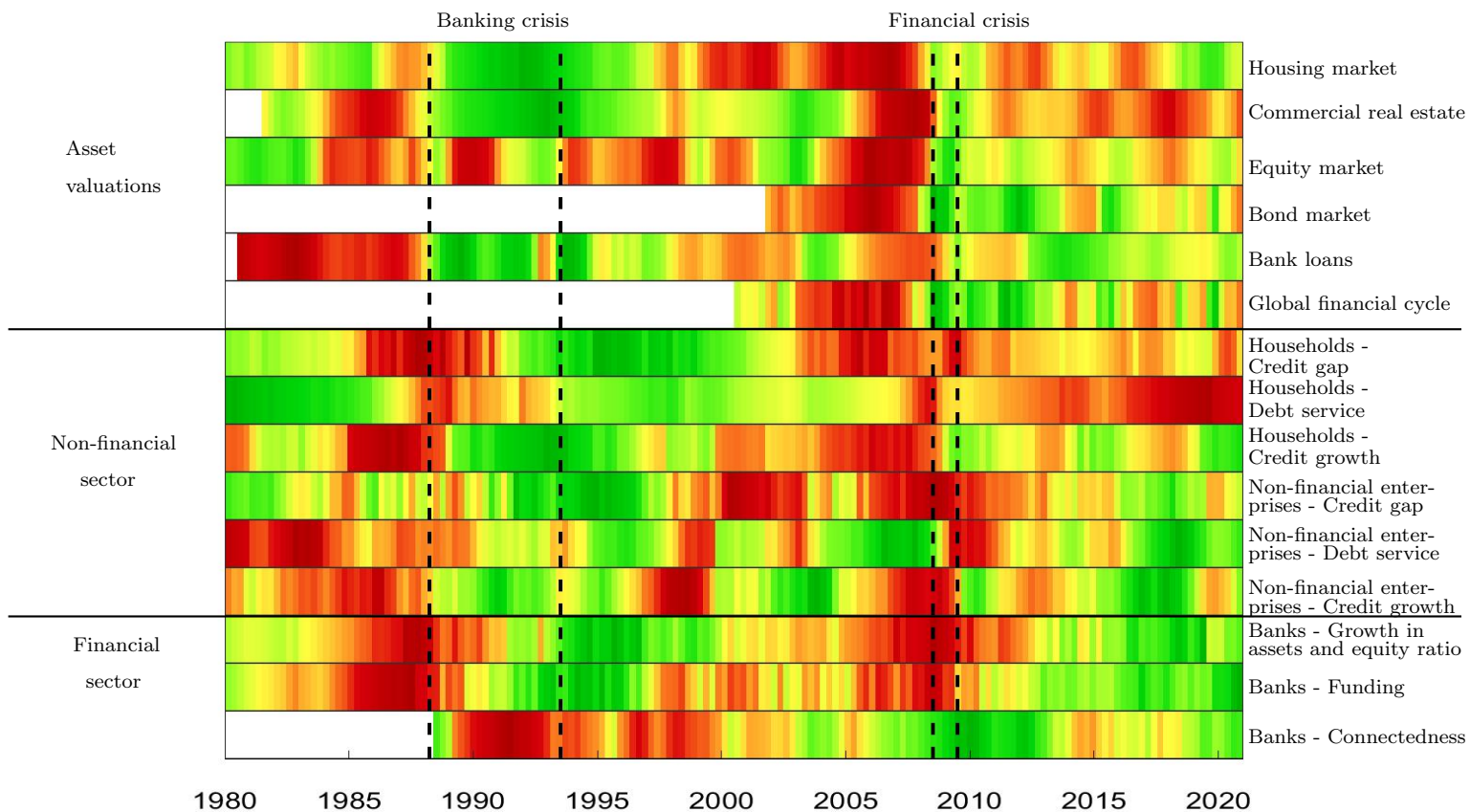
Chart 1.14 Estimated crisis probabilities based on various model specifications¹⁾
1983 Q1 – 2021 Q2



1) Norges Bank has developed early warning models for financial crises based on credit and property price developments. The models are described in Monetary Policy Report 3/14 (page 40) and in Anundsen, A. K., K. Gerdrup, F. Hansen and K. Kragh-Sørensen (2016) “Bubbles and crises: The role of house prices and credit”, *Journal of Applied Econometrics*, 31 (7), November/December, 1291-1311. Estimated crises probabilities are based on a large number of combinations of explanatory variables and trend estimation models.

Source: Norges Bank

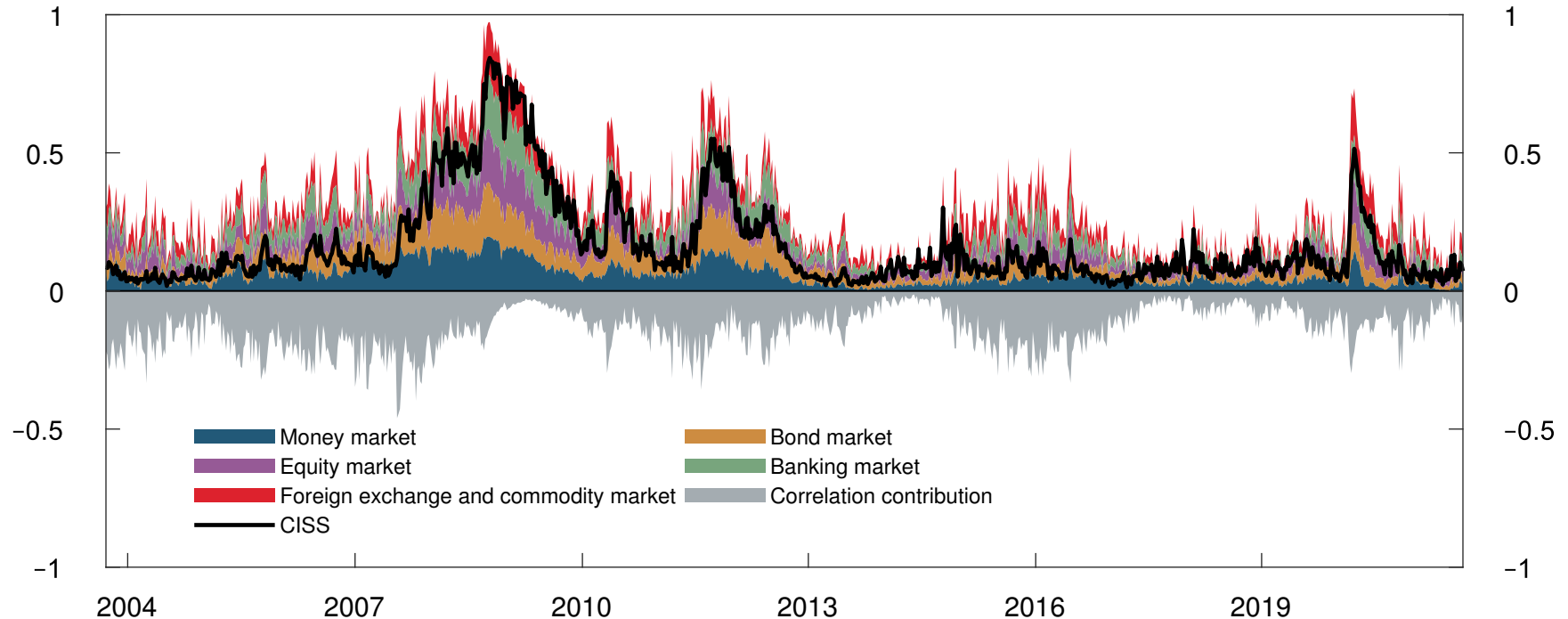
Chart 1.15 Composite indicators in the heatmap¹⁾
1980 Q1 - 2021 Q2



1) The heatmap tracks developments in a broad range of indicators. Developments in each individual indicator are mapped into a common colour coding scheme, where green (red) reflects low (high) levels of vulnerability. Composite indicators are constructed by averaging individual indicators. For a detailed description of the heatmap and the individual indicators, see Arbatli, E.C. and R.M. Johansen (2017) “A Heatmap for Monitoring Systemic Risk in Norway”. Staff Memo 10/2017. Norges Bank.

Sources: BIS, Bloomberg, Dagens Næringsliv, DNB Markets, Eiendomsverdi, Finn.no, Norwegian Association of Real Estate Agents (NEF), OECD, OPAK, Real Estate Norway, Statistics Norway, Thomson Reuters and Norges Bank.

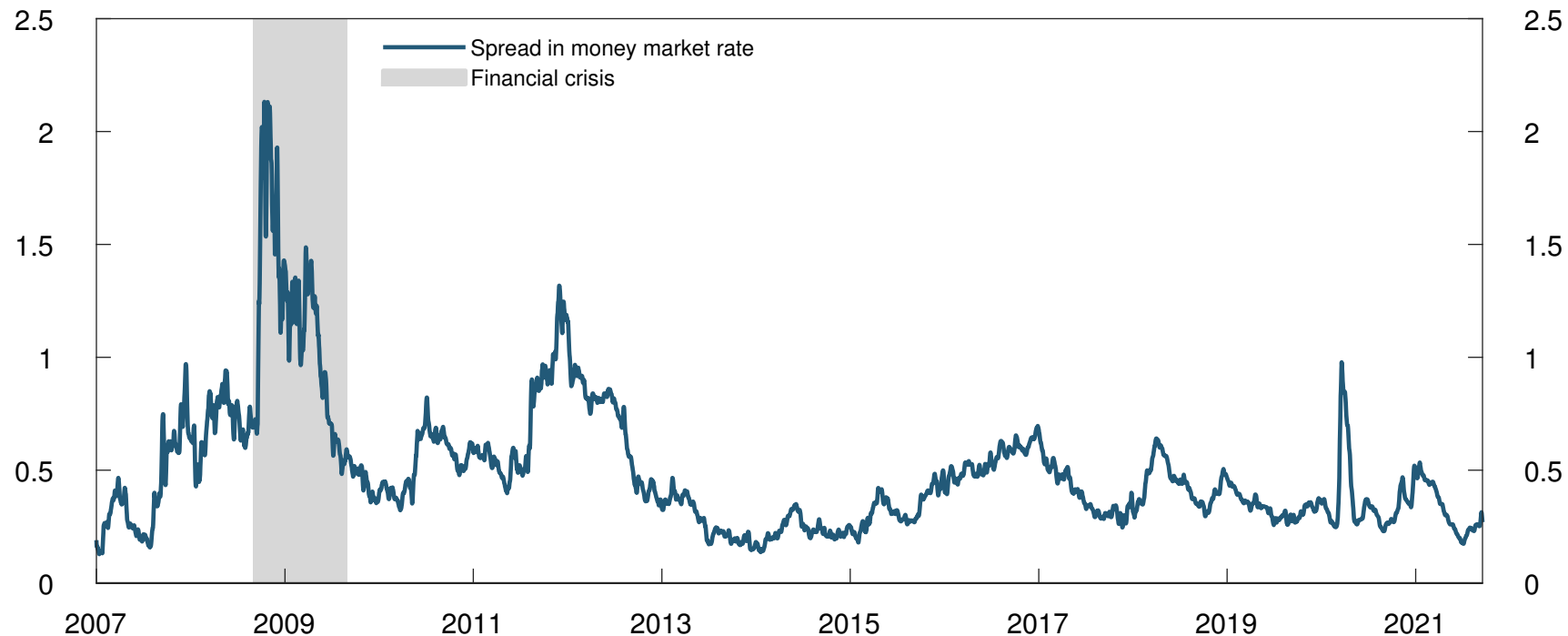
Chart 1.16 CISS indicator for Norway¹⁾
Week 38 2003 – week 35 2021



1) CISS, measured by the black line, is higher the more stress there is in the different market segments (the coloured areas above zero increases) and the more correlation there is between segments (the grey area below zero decreases). CISS is described in Monetary Policy Report 1/19 and Hagen, M. and P.M. Pettersen (2019) "An improved composite indicator of systemic stress (CISS) for Norway". Staff Memo 3/19. Norges Bank.

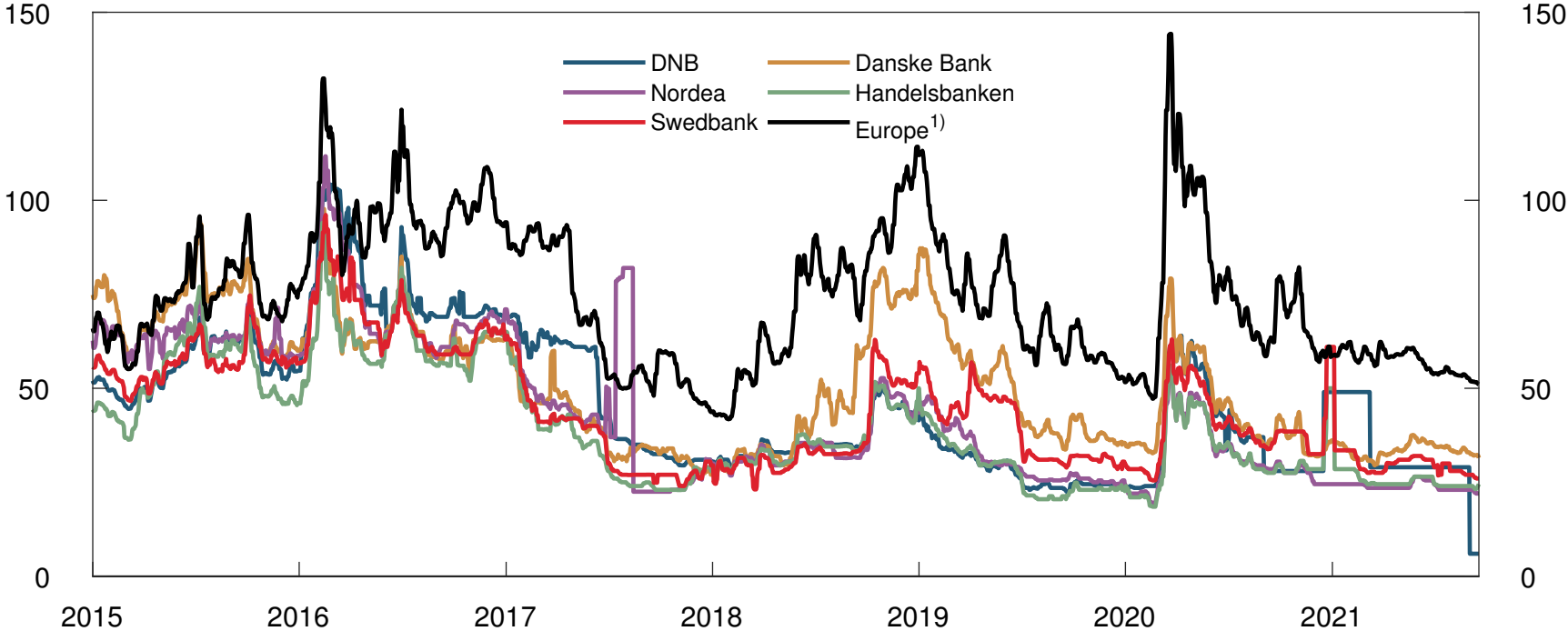
Sources: Bloomberg, DNB Markets, Refinitiv Datastream and Norges Bank

Chart 1.17 Spread in Norwegian three-month money market rate¹⁾
Five-day moving average. Percentage points. 1 January 2007 – 17 September 2021



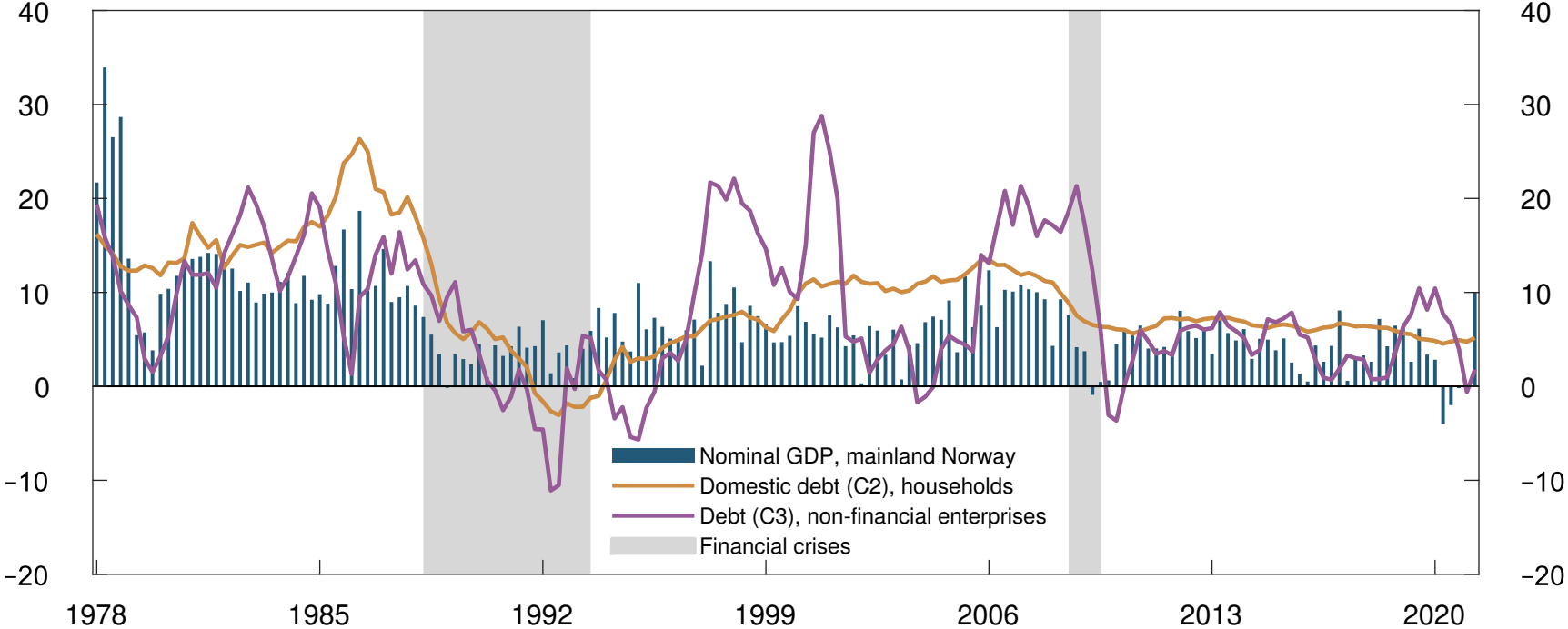
1) Norges Bank's forecast of the difference between three-month money market rate and expected policy rate.
Sources: Refinitiv Datastream and Norges Bank

Chart 1.18 CDS prices for Nordic banks
Senior bonds. Five-year maturity. Five-day moving average. Basis points. 1 January 2015 – 17 September 2021



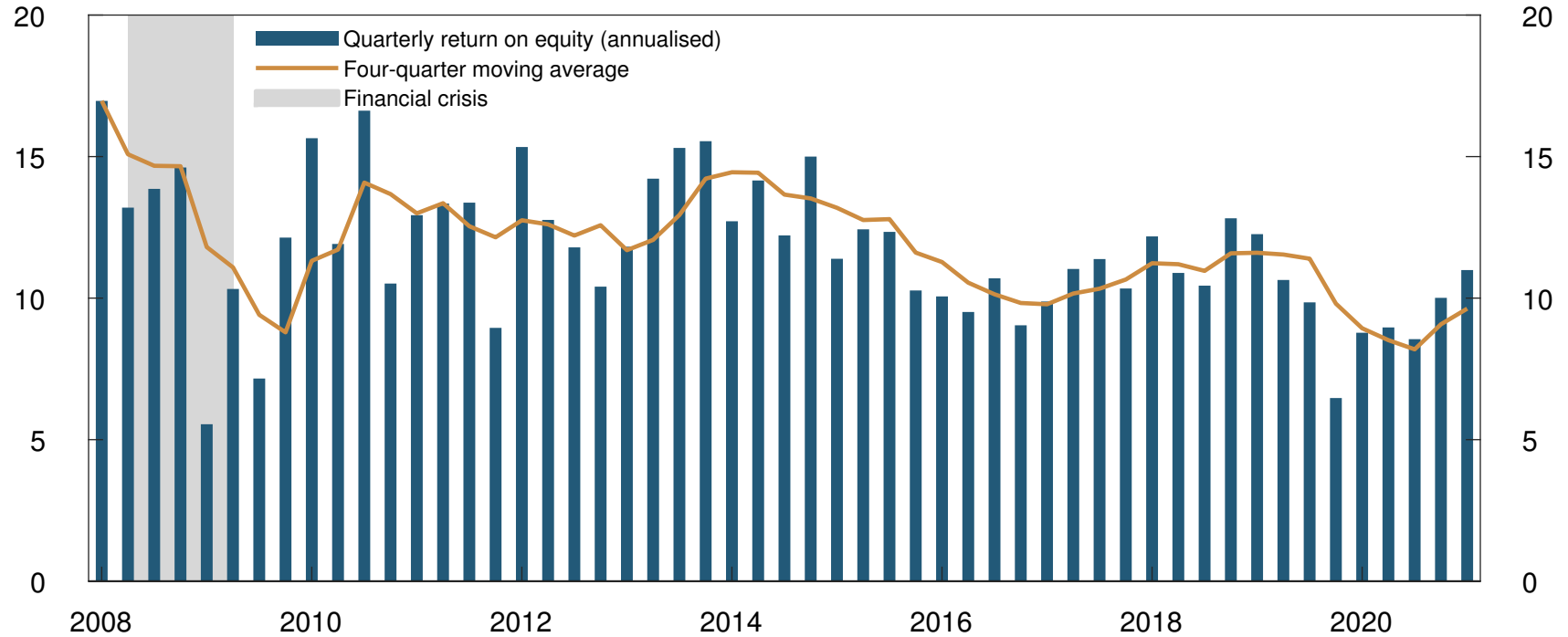
1) The Markit iTraxx Europe Senior Financial index.
Source: Bloomberg

Chart 1.19 Credit growth
Four-quarter change. Percent. 1978 Q1 – 2021 Q2



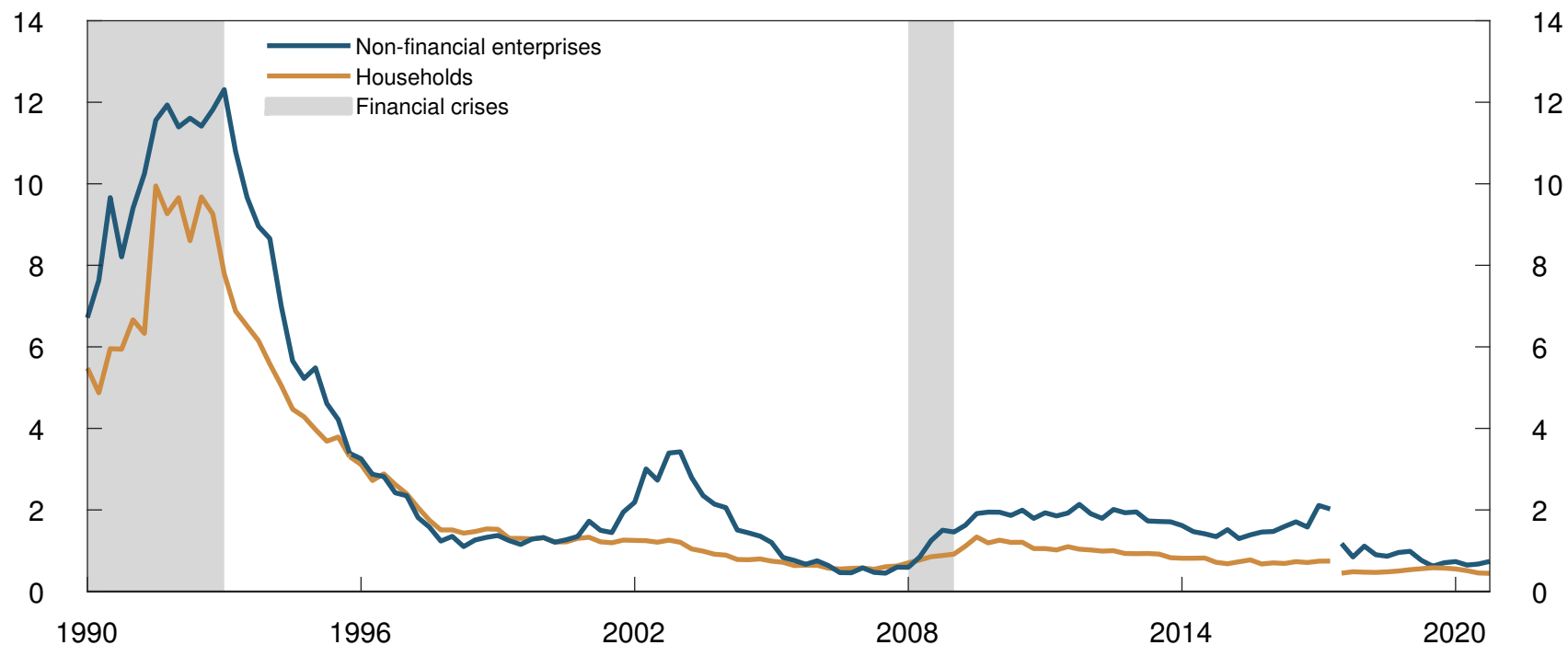
Sources: Statistics Norway and Norges Bank

Chart 1.20 Return on equity for large Norwegian banks
Percent. 2008 Q2 – 2021 Q2



Sources: Banks' quarterly reports and Norges Bank

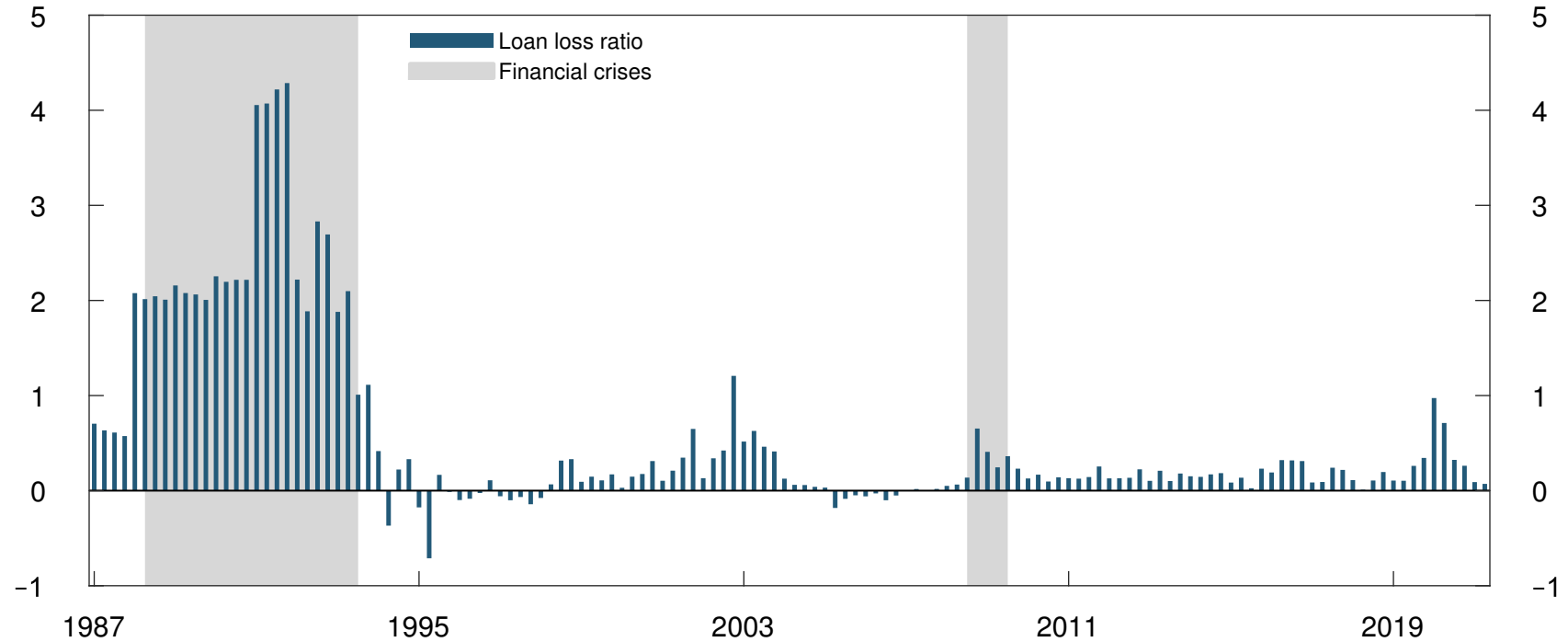
Chart 1.21 Non-performing loans as a share of gross lending to sector¹⁾
All banks and credit companies in Norway. Percent. 1990 Q3 – 2021 Q2



1) Break in the definition of non-performing loans in 1996 Q3 and 2018 Q1. From 2018 onwards, only non-performing loans according to the 90-day definition are included.

Source: Norges Bank

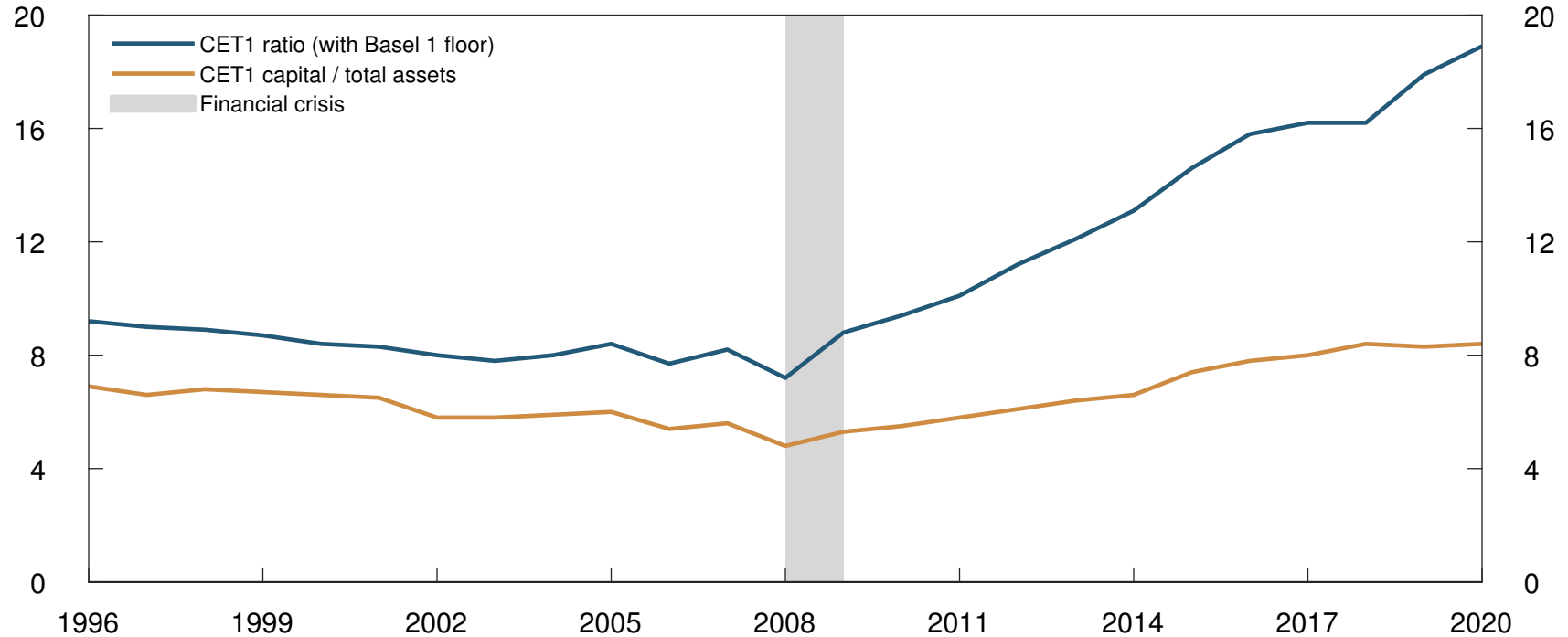
Chart 1.22 Loan losses as a share of total loans
Annualised. All banks and mortgage companies in Norway. Percent. 1987 Q1 – 2021 Q2



1) Annual data on loan losses up to and including 1991. Annual values are divided equally over the quarters.

Source: Norges Bank

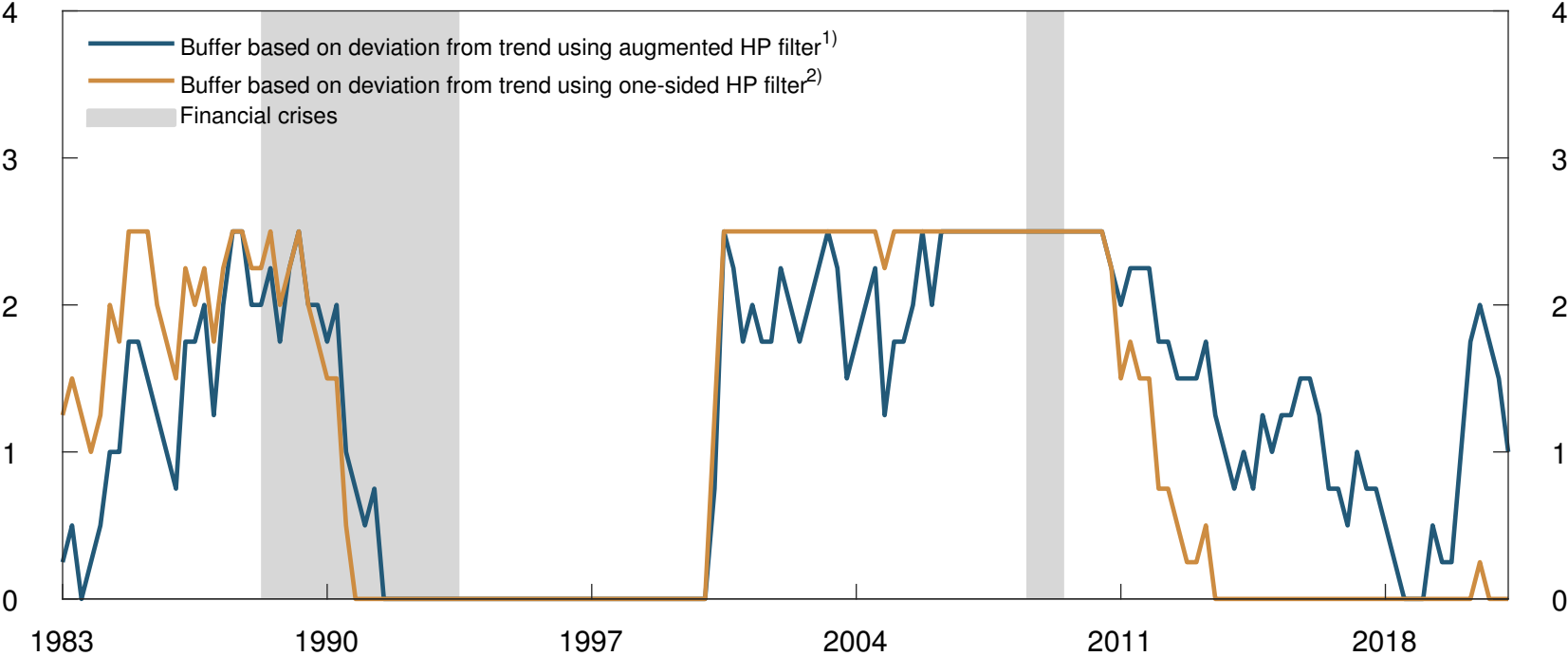
Chart 1.23 Norwegian banks' Common Equity Tier 1 (CET1) capital ratios
 Norwegian banks.¹⁾ Percent. 1996 – 2020



1) Consolidated figures are used for banks that are banking groups. Parent bank figures are used for the other banks. Nordea has been removed from the historical series owing to its conversion to a branch in 2017.

Source: Finanstilsynet (Financial Supervisory Authority of Norway)

Chart 1.24 Reference rates for the countercyclical capital buffer under alternative trend estimates
 Percent. 1983 Q1 – 2021 Q2



1) One-sided Hodrick-Prescott filter estimated on data augmented with a simple projection. Lambda = 400 000. 2) One-sided Hodrick-Prescott filter. Lambda = 400 000. Sources: IMF, Statistics Norway and Norges Bank